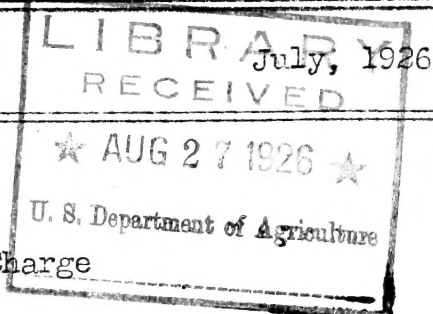


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TAXONOMIC INVESTIGATIONS

S. A. Rohwer, Entomologist, in Charge

H. G. Barber, Roselle, N. J., began on July 1 a temporary appointment as associate entomologist, and has been assigned to work in bugs of the family Reduviidae. In previous temporary appointments Mr. Barber has arranged the North American collection of reduviids, and this summer is working on the reduviids that occur in the neotropical region.

Dr. C. L. Withycombe, Trinidad, visited the Taxonomic Section on July 12 to examine certain types in the collection of the National Museum and confer with Mr. McAtee. While here he met Dr. Knight and H. G. Barber.

Dr. A. C. Kinsey, of the University of Indiana, spent July 26 to 31 studying types of Cynipidae. Dr. Kinsey has recently been working on two or three taxonomic papers on gall-making cynipids, and before he could complete them needed to examine types of the species described by Ashmead.

Dr. W. V. Balduf, of the University of Illinois, left for his home July 26, after spending about six weeks in the study of material of the family Eurytomidae, and beginning a revision of the North American members of the tribe Decatomini.

Dr. A. G. Böving has recently completed a description of the immature stages of one of the fresh-water beetles. The material used was collected in the waters of a river in the East Indies, and was supplied by H. G. Champion. Accompanying the description are two elaborate plates illustrating the larva and various details of it.

The coleopterists of this section have recently submitted specimens of a beetle which seems to be an entirely new American pest. Records of this species come from two or three localities in New York and two in New Jersey. The species has been identified by R. W. Dawson as Autoserica japonica Motsch., after comparison with authentic material from European museums. This makes the third scarab which has been introduced from Japan. While it is not known how destructive this new insect may be, it may possibly develop into a pest. It is suggested that entomologists in the eastern part of the United States be on the lookout for it. Unlike the two other species which have been introduced, it is not of striking appearance. It is a small, brown scarab which superficially resembles a number of the species of the genus *Serica*.

Dr. A. L. Melander, of the College of the City of New York, recently spent two weeks in the section of insects studying Diptera with Dr. Aldrich.

TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, Entomologist, in Charge

Owing to the reorganization of the Division of Southern Field Crop Insect Investigations the project "Tobacco Insects" has been transferred to the Division of Truck Crop Insect Investigations, effective July 1, 1926. This change adds to the latter Division two laboratories and their permanent personnel; one at Clarksville, Tenn., at which are employed A. C. Morgan, Associate Entomologist, in Charge, S. E. Crumb, Associate Entomologist, J. U. Gilmore, Assistant Entomologist, J. N. Tenhet, Junior Entomologist, M. P. Quarles, Assistant Clerk, and Hillord Cross, Laborer, and the other at Quincy, Fla., in charge of F. S. Chamberlin, Assistant Entomologist.

In order to consolidate the wireworm work in the Northwest, M. C. Lane, Assistant Entomologist, Toppenish, Wash., has been transferred from the Division of Cereal and Forage Insect Investigations to that of Truck Crop Insect Investigations, effective July 1, 1926.

W. H. White, Associate Entomologist, of the Washington office, and P. D. Sanders, of the Maryland Agricultural Experiment Station, visited Cumberland, Md., and vicinity, July 1 and 2, to confer with R. H. McHenry, County Agent, regarding the control of the striped cucumber beetle.

N. F. Howard, Associate Entomologist in charge of Mexican Bean Beetle Investigations, Columbus, Ohio, visited Birmingham, Ala., in the early part of July to confer with Mr. Brannon regarding the infestation of the bean beetle in the Southeastern States. He also visited the Geneva, N. Y., sub-station, and conferred with Rodney Cecil, Junior Entomologist, in charge, and Professor P. J. Parrott, on the projects connected with the Geneva laboratory.

Rodney Cecil, Junior Entomologist, Geneva, N. Y., attended the meetings of the Northeastern Entomologists, held at Yonkers, N. Y., and vicinity, July 21 to 23.

Dr. L. O. Howard, while on his recent trip to the Pacific Coast, visited the Alhambra laboratory on July 5 and 6.

Recent visitors at the Alhambra station were Doctors W. H. Larrimer and F. C. Craighead, of Washington, D. C.

Dr. Stepan Soudek, of the College of Agriculture and Forestry, Brno, Czechoslovakia, visited the laboratory for investigation of the Mexican bean beetle at Columbus, Ohio, on July 20, and on the following day went with Neale F. Howard and Dr. D. M. DeLong to visit the summer laboratory at Athens, Ohio, and look over the field experiments under way there.

K. L. Cockerham, Associate Entomologist, writes from Biloxi, Miss., under date of July 17 that he had just returned from Baldwin County, Ala., where he looked over the cooperative work relative to the eradication of the sweet-potato weevil. Conditions there are most satisfactory. In the year 1925 61 farms were found infested, but after close inspections in the present season on these and surrounding properties, no weevils have been found except in volunteer plants on one place. None of these 61 farms have grown potatoes in 1926, and it is not expected that many weevils will be found in the section this season.

Temporary appointments as Field Assistants have been given to I. W. Berryhill and G. A. Orum, graduates respectively of the Mississippi A. & M. College and the Alabama Polytechnic Institute. Under the direction of K. L. Cockerham, Associate Entomologist, Biloxi, Miss., they will assist in the work under way at Foley, Ala., for the eradication of the sweet-potato weevil.

Edgar J. Udine, formerly connected with the Division of Cereal and Forage Insect Investigations in a temporary capacity as Field Assistant, and now in the service of the State Entomologist of Wyoming, and John R. Parker, connected with the office of the State Entomologist of Montana, have been appointed collaborators. They will make a survey of the sugar-beet leafhopper (Eutettix tenella) in Wyoming and Montana.

BEE CULTURE INVESTIGATIONS

James I. Hambleton, Apiculturist, in Charge

Visitors at the Bee Culture Laboratory in July included Dr. H. Prell, of Germany; Prof. James Ritter, teacher of beekeeping in St. Louis College, Honolulu, Hawaii; L. E. Dill, of the University of West Virginia, Morgantown; and J. M. Barr, a prominent beekeeper of Wisconsin. Last year Doctor Prell identified a species of Amoeba found quite commonly encysted in the Malpighian tubules of honeybees in colonies badly infected with Nosema apis. He has named this species Vahlkamfia (Malpighamoeba) mellifica.

Virgil N. Argo has resigned his temporary appointment as Field Assistant. He has been conducting investigations on Braula coeca at New Windsor, Md., in an endeavor to work out obscure points of its life history, more especially in the fore part of the active season.

CEREAL AND FORAGE INSECT INVESTIGATIONS

W. H. Larrimer, Entomologist, in Charge

From July 7 to July 9, inclusive, Dr. W. H. Larrimer was in the Boston, Mass., area for consultation with L. H. Worthley and D. J. Caffrey regarding the corn borer work. He examined the field and laboratory experiments in progress and made a tour of inspection in the field.

An imported species of European corn borer parasite, Angitia (Diocetes) punctoria Roman, was recovered in encouraging numbers in June and July in the New England area. A total of five imported species have now been recovered in this area. Ten species have thus far been liberated in the field.

Dr. C. L. Marlatt, A. F. Burgess, and D. M. Rogers, and Dr. Stepan Soudok, of the College of Agriculture and Forestry at Brno, Czechoslovakia, were recent visitors at the Arlington laboratory.

On July 14 R. C. Ellis, of the Arlington laboratory, left for the Monroe, Mich., corn borer laboratory, where he will install and, in cooperation with Dr. Luginbill, supervise an extensive rearing campaign of Exeristes roborator Fab. and Habrobracon brevicornis Wesm., two of the imported parasites of the corn borer. This work will supplement and reinforce the colonies of these two species liberated in Michigan, Ohio, Pennsylvania, and western New York in the last three years. E. roborator was recovered in northwestern Ohio in the autumn of 1925. Mr. Ellis will remain at Monroe until about September 1.

In July many specimens of the larva of the lined stalk-borer, Hadena fractilinea Grote, were sent from localities in Michigan, Ohio, Connecticut, and Rhode Island to the Arlington corn borer laboratory. The appearance of the larva, and its characteristic injury to young corn, bear a superficial resemblance to those of P. nubilalis.

K. W. Babcock and A. M. Vance, of the Arlington laboratory, now engaged in ecological investigations in Europe, report that weather conditions during May and June were unfavorable for field work in Hungary, Yugoslavia, Germany, and Poland. The seasonal development of the corn borer has been delayed in the areas under observation.

Commissioner C. P. Norgord, of the New York Department of Agriculture, visited the Silver Creek, N. Y., corn borer laboratory on July 20 for consultation with H. N. Bartley, in charge, and to become familiar with corn borer conditions in western New York.

W. R. Walton was at the Silver Creek corn borer laboratory on July 19 and 20, for conferences regarding the work in that area.

C. N. Ainslie, of the Iowa station, spent the week of July 9 making a survey of conditions in Minnesota relating to the green bug and other insects.

A. F. Satterthwait, of the Missouri laboratory, spent a portion of the month of July in field work in Iowa. During this period he made insect collections in the Iowa Lakeside Laboratory, near Lake Okoboji. En route to his official headquarters he visited the Iowa laboratory.

Dr. W. H. Larrimer was in attendance at a conference of workers on the control of the European corn borer, held July 22 at Sandusky, Ohio. A revision of clean-up regulations was discussed. On his way to Sandusky Dr. Larrimer stopped at Columbus, Ohio, to consult with officials of the State Department of Agriculture and of the State University, and on his return trip he visited the Ohio Agricultural Experiment Station, at Wooster.

W. R. Walton, of the Washington office, L. H. Worthley, D. J. Caffrey, and other members of the corn borer staff, attended the European Corn Borer Conference held at Sandusky, Ohio, on July 22.

It has been decided to keep in the Washington office, beginning July 1, a file of separates of all publications prepared by each member of the staff in the section of Cereal and Forage Insect Investigations. The usefulness of such a file is quite obvious, and all members of the field force are earnestly requested to send two separates of each of their publications, both technical and popular, for inclusion in this file. Those published in outside periodicals are especially requested.

W. E. Haley has recently been at Crowley, La., where with J. W. Ingram he has been carrying on experiments with various poisons against the sugar cane moth borer.

The Daily Argosy, a newspaper of British Guiana, prints an article by the entomologist, H. W. B. Moore, on the estimate of the loss due to the sugar cane moth borer in Louisiana, made by the Sugar Cane Insect Laboratory in cooperation with the Bureau of Agricultural Economics. The moth borer is a pest in British Guiana as well as in the United States.

T. E. Holloway recently spent several weeks in Florida receiving tachinid parasites from Cuba for release in sugar cane fields. H. K. Plank, of the Tropical Plant Research Foundation, has been sending the tachinid to Department and State officials in Florida, and more recently he has sent an ichneumonid for release in Louisiana. Both parasites attack the sugar cane moth borer.

H. D. Smith, of the Carlisle, Pa., Laboratory, recently returned from a survey of the wheat-growing regions in central and northern New York for the Hessian fly and wheat stem sawflies.

JAPANESE BEETLE INVESTIGATIONS

Loren B. Smith, Entomologist, in Charge

M. L. Deán, Director of the Idaho State Bureau of Plant Industry, Dr. Stepan Soudek, of the College of Agriculture and Forestry, Brno, Czechoslovakia, and Professor R. W. Harned, State Entomologist of Mississippi, were recent visitors at the Japanese Beetle Laboratory.

After a summer meeting and field trip of the Northeastern Entomologists held in and near New York on July 21 and 22, a number of the members spent July 23 at the Japanese Beetle Laboratory. A field trip was arranged for the visiting scientists, who were shown the grub-control project at the Riverton golf course, spraying for beetle control at several orchards, and an exhibition of an attractant-contact spray. Among those present were J. N. Knull, H. B. Kirk, and F. M. Trimble, Harrisburg, Pa.; Dr. Hugh Glasgow and Rodney Cecil, Geneva, N. Y.; Dr. R. D. Glasgow, University of Illinois; H. L. Dozier, Newark, Del.; Dr. Alva Peterson, Riverton, N. J.; S. M. Dohanian and T. H. Jones, Melrose Highlands, Mass.; P. T. Barnes and J. G. Sanders, Philadelphia; Albert Hartzell, Yonkers, N. Y.; J. R. Springer, Florida; J. R. Stear, Chambersburg, Pa.

A special field day was held at the Japanese Beetle Laboratory on July 28 for prominent officials from New Jersey, Pennsylvania, Delaware, and Washington, D. C. Under the direction of Loren B. Smith an elaborate program was prepared, and the visitors were given an opportunity to become acquainted with the work in progress and to observe practical examples of control in the field. They were shown the laboratory where chemicals in spray form are tested for use in the warfare against the beetle. Methods of collecting and of shipping parasites from foreign countries, and of rearing them for use against the beetle, were explained. Traps, bait-cans, and other apparatus, for field and laboratory, were shown. At the Riverton Golf Course methods of treating golf greens were discussed. At the Japanese Beetle Laboratory informal talks were given by guests and members of the staff, after which lunch was served at a neighboring hotel. In the afternoon a field trip was made by auto to several apple and peach orchards, and the guests were shown the injury caused by beetles on unsprayed trees and the protection afforded by proper spraying. [A feature of the trip was a demonstration of the use of geraniol, a spray of which at once attracted thousands of beetles to the vicinity. A tree covered with them was then sprayed with a suitable contact spray; dead beetles soon covered the ground under the tree.

On the afternoon of July 23 the activity of Japanese beetles along the river front in Philadelphia indicated that a migrational flight was imminent. An embargo covering the movement of all fruit and vegetables from Philadelphia to points outside the regulated area was accordingly placed, to become effective at midnight of that date. A migration of beetles from New Jersey to the market districts of Philadelphia continued until July 28, in what is believed to have been the heaviest flight of its kind that has taken place since Philadelphia came within the infested area. A continuous rain checked the activity of the beetles, and the embargo was lifted on July 29.

SOUTHERN FIELD-CROP INSECT INVESTIGATIONS

J. L. Webb, Associate Entomologist, Acting in Charge

On July 1 J. L. Webb visited the Marines' Camp at Quantico, Va., to observe the inauguration of an experiment conducted by the sanitary officers of the Camp, for control of mosquitoes by distributing diluted Paris green from an airplane over a limited area of swamp. The experimental area is being dusted every ten days during the summer.

G. L. Garrison has been transferred from the Washington office to the Boll Weevil Laboratory at Tallulah, La.

The appointment of Dr. G. M. Armstrong, Agent, of the Florence, S. C., station, was terminated July 1. Dr. Armstrong has been employed by the State Experiment Station of South Carolina, with duty at Florence.

J. M. Lewis, temporary field assistant, of the Florence, S. C., station, and Sherrill Sevier, temporary field assistant, of the Tallulah, La., station, have resigned their positions.

On July 8 F. C. Bishopp addressed a sectional meeting of the Texas Farm Bureau Federation at Victoria, and on July 23 another at Mount Pleasant, Tex., his subject on both occasions being the control of external parasites of poultry.

On July 15 Dr. R. C. Roark, of the Bureau of Chemistry, left Dallas for Washington. He had been at the Dallas Laboratory for the previous six weeks, working on chemotropic experiments with the screw worm and other flies, as part of a cooperative project of the Bureau of Chemistry and the Bureau of Entomology.

W. E. Dove, of the Dallas Laboratory, recently spent a few weeks at Uvalde, Tex., studying the anthrax situation with D. C. Parman. Especial attention was given to the transmission of anthrax by horse flies. Mr. Dove left for Florida about the middle of July to continue his work with the creeping eruption of man, and certain investigations relating to insects which affect livestock.

F. C. Bishopp has been supervising the insect control work which was undertaken on the cotton-demonstration farm near Dallas, operated by the Dallas News and the Semi-Weekly Farm News. The cotton hopper has been very destructive there, and several applications of sulphur have been made, the two last by airplane.

FOREST INSECT INVESTIGATIONS

F. C. Craighead, Entomologist, in Charge

The National Lime Association is cooperating with the Bureau of Entomology in a series of tests of different grades of lime mortars and concretes, to determine which are most effective for brick or concrete foundations in regions where termites cause serious damage to buildings. Among the subjects of study will be the physical and chemical properties of the mortars and concretes, the results of different methods of slaking and of different proportions of lime, and related topics. These tests will probably be duplicated at Panama and Hawaii, where a termite (*Coptotermes*) dissolves lime. The service tests, which will probably occupy several years, are being made on a series of brick and concrete walls at the eastern field station at Falls Church, Va., near the service tests now under way of woods treated with chemical wood preservatives; the soil here is well infested with subterranean termites.

On July 1 J. A. Beal, Assistant Entomologist, assumed charge of the entomological work at the Bent Creek Laboratory, near Asheville, N. C. Mr. Beal was graduated from the Massachusetts Agricultural College in 1923 and received the degree of M. S. from Syracuse University in 1925. In 1923 and 1924 he was associated with H. B. Peirson, Forest Entomologist of the State of Maine. He spent the summer of 1925 at the Harvard Forest School, in the employ of the Bureau of Entomology. During the past school year he studied at the New York State College of Forestry, working toward his doctor's degree.

On July 25 J. A. Beal went to Cranberry, N. C., where, it was recently reported, the chestnut trees have for several years been partially or entirely defoliated by a lepidopterous larva, and are said to die after the third defoliation. This prolonged injury has resulted in a forced cutting of the timber. A few chestnut oaks were also reported to have been recently defoliated. Mr. Beal finds that the injury to the chestnut was caused by the larvae of the fall canker worm, *Aisophila pometaria* Harris.

In accordance with a request of the Virginia Hardwood Lumber Co., Mr. Beal visited Suiter and Bland, Va., July 27 and 28, to determine the cause of the death of some three million feet of merchantable white oak timber. The situation proved to be one of unusual interest. It was found that a single hard freeze in May, 1925, had been responsible for the death of some of the overmature white oak in the valleys and hollows.

DECIDUOUS-FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Associate Chief of Bureau, in Charge

O. I. Snapp, in charge of peach insect investigations at Fort Valley, Ga., writes, "Another Georgia peach crop of unexcelled quality that filled over thirteen thousand cars has been marketed. There was not a single complaint of damage from the curculio."

E. J. Newcomer, of the Yakima Station, attended the annual meeting of the Pacific Division of the American Association for the Advancement of Science at Mills College and Berkeley, Calif., June 17 to 19.

Niils A. Vappula, Entomologist of the Agricultural Institute of Finland, visited the Yakima Station July 15 and 16.

LIBRARY

Mabel Colcord, Librarian

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